

**Agenda**  
**Combustion Technology University Alliance Workshop**  
**August 4-5, 2003**

**Monday, August 4, 2003**

- 8:00 a.m.     ***Registration / Continental Breakfast***
- 9:00 a.m.     ***Welcoming Logistics***  
Larry Shadle, Research Group Leader  
U.S. DOE, National Energy Technology Laboratory
- 9:05 a.m.     ***Welcome & Opening Remarks***  
Jacqueline Bird, Director, Ohio Coal Development Office  
Ohio Air Quality Development Authority
- 9:15 a.m.     ***Combustion Technology University Alliance - Status***  
Don Bonk, Product Manager Combustion Technologies  
U.S. DOE, National Energy Technology Laboratory
- 9:40 a.m.     ***Utility Perspective on R&D Needs***  
Ben Yamagata, Executive Director  
Coal Utilization Research Council
- 10:05 a.m.     ***Coal Combustion Kinetics for High Pressure Applications***  
Stephen Niksa, President  
Niksa Energy Associates
- 10:30 a.m.     ***Break***
- 10:55 a.m.     ***Conceptual Plans on Circulating Fluid Bed Combustion Test Facility***  
John Riley, Director of Materials Characterization Center  
Western Kentucky University
- 11:15 a.m.     ***Ion-Transport Membrane (ITM) Technology for Non-Cryogenic Oxygen Production and Some Results on Oxygen-Enriched Combustion of Pulverized Coal***  
Arun C. Bose, Project Manager  
U.S. DOE, National Energy Technology Laboratory
- 11:40 a.m.     ***An Overview of the Ultrasupercritical Boiler Materials Development Program***  
Walter Mohn, Principal Engineer, Materials Technology  
Babcock & Wilcox Company
- 12:00 p.m.     ***Lunch*** – Harrison Room

- 1:00 p.m.     ***Economic Analysis of Ultrasupercritical PC Plants***  
George Booras, Manager, Technology Assessment  
EPRI
- 1:20 p.m.     ***Combustion Technology Research & Development Needs***  
Jack Fuller, Director, Division of Business Administration  
West Virginia University
- 1:50 p.m.     ***Panel Discussion*** – University and Industrial Response to Combustion  
and Technology Needs (R&D Survey)

University Research Panel

- Ari Geertsema, Kentucky Center for Applied Research,  
University of Kentucky
- John Sale, Lehigh University
- Umit Ozkan, Ohio State University
- John Riley, Western Kentucky University

Industry Panel

- Woody Fiveland, ALSTOM Power
- Ovidiu Marin, Air Liquide
- Robert Bessette, Council of Industrial Boiler Owners
- Ben Yamagata, Coal Utilization Research Council

- 3:00 p.m.     ***Break***

- 3:15 p.m.     ***Breakout Sessions*** –

***Objective:***

To arrive at a specific list of R&D activities that will facilitate the development of a CTUA Roadmap.

***Discussion Categories:***

- A.** What is missing from DOE's Combustion Technology Roadmap?
- B.** What can University Alliance contribute to each of the following six broad technology areas:
1. Combustion technologies enabling carbon management
  2. Circulating fluid-bed commercialization
  3. Multi-pollution control (focus in-situ/in-bed)
  4. Hybrid (gasification/combustion) technologies
  5. Pressurized systems (feed, ash removal, filters, pollution control)
  6. Ultra supercritical plants

5:15 p.m.     ***Break***

5:30 p.m.     ***Reception / University R&D Capabilities Poster Session***

ALSTOM Power – Woodrow Fiveland  
Brigham Young University – Tom Fletcher  
Brown University – Robert Hurt  
Carnegie Mellon University – Woo Tae Kim  
Iowa State University – Robert C. Brown  
Lehigh University – John Sale  
National Energy Technology Laboratory – Joseph Mei  
Southern Illinois University – Tomasz Wiltowski  
The Ohio State University – Theodore Thomas  
The Pennsylvania State University – Sarma Pisupati  
University of Connecticut – Joseph Helble  
University of Illinois at Urbana-Champaign – Eric Loth  
University of Pittsburgh – Gotz Vesper  
University of Utah – Eric Eddings  
West Virginia University – Parviz Famouri  
West Virginia University – Trina Wafle  
Western Kentucky University – Wei-Ping Pan

**Tuesday, August 5, 2003**

8:00 a.m.     ***Continental Breakfast***

8:30 a.m.     ***Reconvene Breakout Sessions***

9:00 a.m.     ***Panel Discussion*** – Government Contract Opportunities and Legal Requirements

- Lisa Jarr, Legal Counsel, NETL
- Richard Rogus, Contracting Officer, NETL

9:30 a.m.     ***Break***

10:00 a.m.    ***Report on Breakout Sessions***

10:45 a.m.    ***Panel Response to Breakout Sessions***

11:30 a.m.    ***Lunch / Closing Remarks***  
Carl Bauer, Associate Director, Office of Coal & Environmental Systems  
U.S. DOE, National Energy Technology Laboratory

12:30 p.m.    ***Adjourn***

1:00 p.m.     ***Steering Committee Meeting***